

Amendment dated June 16, 2005
Reply to Office Action dated March 17, 2005

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A fluid analyzer comprising:

a pump;

a concentrator fluidly connected to the pump; and

a separator fluidly connected to the concentrator; and

wherein the concentrator comprises[[::]] a channel[[::]] and a continuous heater film [[in]]

along the channel; and

a controller coupled to the continuous heater film for generating a moving heat pulse in
the heater film that moves down the heater film and thus the channel, the moving heat pulse
defined by a peak temperature with lower temperatures both downstream and upstream of the
peak temperature.

2. (Cancel) The analyzer of claim 1, wherein the continuous heater film is for generating a moving heat zone in the channel.

3. (Currently Amended) The analyzer of claim [[2]] 1, wherein the moving heat zone pulse has a rate of movement approximately the same as a fluid moving through the channel.

4. (Original) The analyzer of claim 3, further comprising:

a first detector situated between the pump and the concentrator; and
a second detector situated at an output of the separator.

5. (Original) The analyzer of claim 4, further comprising a third detector
between the concentrator and the separator.

6. (Original) The analyzer of claim 5, wherein:
the first detector is a thermal conductivity detector;
the second detector is a thermal conductivity detector; and
the third detector is a flow sensor.

7. (Currently Amended) The analyzer of claim 6, ~~further comprising a controlling~~
~~mechanism wherein the controller is also connected to the pump, concentrator, separator and~~
detectors.

22. (New) A fluid analyzer, comprising:
a channel for receiving a gas;
a continuous heater film extending along at least part of the channel;
a controller coupled to the heater film for generating a moving heat pulse that moves
down the continuous heater film and thus the channel, the moving heat pulse defined by a peak
temperature with lower temperatures both downstream and upstream of the peak temperature.

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23. (New) The fluid analyzer of claim 22 further comprising a detector positioned downstream of the heater film.

24. (New) The fluid analyzer of claim 22, wherein the moving heat pulse has a rate of movement that is approximately the same as the gas moving through the channel.

25. (New) A method for operating a fluid analyzer having a channel, comprising:
providing a gas down the channel, wherein the channel includes a continuous heater film extending along at least part of the channel;
generating a moving heat pulse in the continuous heater film that translates down the continuous heater film and thus the channel, the moving heat pulse defined by a peak temperature with lower temperatures both downstream and upstream of the peak temperature.

26. (New) The method of claim 25, wherein the moving heat pulse has a rate of movement that is approximately the same as the gas moving through the channel.

27. (New) A fluid analyzer, comprising:
a channel for receiving a gas;
a first heater element thermally coupled to the channel;
a second heater element thermally coupled to the channel, wherein the second heater element is downstream of the first heater element and has a length along the channel that is less than the first heater element;

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a controller coupled to the first heater element and the second heater element, wherein the controller heats the first heater element, and a predetermined time later, heats the second heater element.

28. (New) The fluid analyzer of claim 27 wherein the predetermined time is related to a rate of movement of the gas through the channel.

29. (New) The fluid analyzer of claim 28 wherein the second heater element is positioned adjacent to an output of the channel.